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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/987,404

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Takeshi Kamio

SH-0027US

7029

21254

7590

09/27/2011

MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC

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SUITE 200

VIENNA, VA 22182-3817

EXAMINER

HOFFMANN, JOHN M

ART UNIT

PAPER NUMBER

1741

MAIL DATE

DELIVERY MODE

09/27/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/987,404	KAMIO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	JOHN HOFFMANN	1741	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,8,10-15,17 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,8,10-15,17 and 21-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3-5, 7 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa 5306322 in view of Furuguchi JP 6-92665 and Fleming 5221306.

See how Ishikawa was previously applied to the prior claims and affirmed by the BPAI on 2/15/2011. Claim 1 now further requires an eccentricity of 0.4% or less which Ishikawa does not disclose. However Furuguchi discloses it known to have an eccentricity of 0.2%. Fleming discloses that strict concentricity requirements are needed to avoid appreciable transmission loss (col. 1, lines 40-57). It would have been obvious to keep the Ishikawa eccentricity at 0.2% so as to avoid losses at connections.

Alternatively/additionally, Fleming discloses a high rejection rate due to eccentric cores (col. 1, lines 49-53). Thus it would have been obvious to discard any preform with an eccentricity higher than 0.2%.

Examiner contemplated the trying to determine an eccentricity from Fleming's figure 6. However figure 6 indicates that the core and clad are not true circles. Can one use a circumscribed circle to approximate the center? An inscribed circle? A hexagon? More importantly it is unclear whether the present specification discloses completely what applicant used to determine eccentricity. The bottom of page 14 of the current specification, applicant discloses using Model 2400 to determine the eccentricity of the fiber. However the claim is directed to the eccentricity of the preform. Thus there is no indication as to how to determine the eccentricity of the preform. Even assuming one could use a same algorithm to determine the eccentricity of the preform, this algorithm is not identified - It is conceivable that the manufacturer of 2400 has since improved

model 2400 or adjusted its programming. Or even it could be that the 2400 has plural modes of determining concentricity. According to the Photon Kinetics website at the present time, concentricity has different levels of precision for single mode vs. multimode.

The current Model 2400 website refers to concentricity but offers the values in microns, whereas non-circularity is measured in percentage. The website makes no mention of eccentricity.

Figure 1 of Fleming shows determining eccentricity based on the distance between the core and the outer surface of cladding. Examiner understands this to be different from the 2400's concentricity (assuming it is how well the centers match up. In other words: it is questionable as to whether the 2400 would determine that figure 1 of Fleming are completely concentric (i.e. 0.0% eccentric) merely because the centers align perfectly (assuming they did). Or would the 2400 determine eccentricity in the same way that Fleming does which is clearly not 0.0%.

Based on these points, examiner interprets the term 'eccentricity' rather broadly – at least compared to any strict mathematical definition. The Fleming 1-1-1 curve is constant from about 75 degrees to about 125 degrees, indicating no variation in distance between the core and the cladding outer surface. Thus for that sector, the eccentricity is approximately 0. The present claim does not require that the preform have the eccentricity at all locations, either axially or azimuthally.

Claims 8, 10-12, 14-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa 5306322 in view of Antos 6289698, Furuguchi JP 6-92665 and Fleming 5221306.

See how Ishikawa is applied above, and how Ishikawa and Antos were combined in the prior Office Action – as affirmed by the BPAI.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

It is argued that Ishikawa and Antos does not teach the eccentricity of a core inside the base material is 0.4% or less. This appears to be true, but the such would have been obvious in light of the additional reference as discussed above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN HOFFMANN whose telephone number is (571)272-1191. The examiner can normally be reached on Monday through Wednesday, roughly 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Daniels can be reached on 571-272-2450. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1741

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Hoffmann  
Primary Examiner  
Art Unit 1741

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